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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-----------------------|------------------|
| 10/802,453 | 03/17/2004 | Po-Sung Kao | 250112-1060 | 4005 |
| 24504 | 7590 | 12/29/2004 | EXAMINER | |
| THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948 | | | BOUTSIKARIS, LEONIDAS | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2872 | |

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,453

Applicant(s)

KAO ET AL.

Examiner

Leo Boutsikaris

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-7 and 11-14 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8 and 10 is/are rejected.
- 7) ☒ Claim(s) 3 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The abstract of the disclosure is objected to because it contains the word “comprises”.
Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 8, 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Bates (US 4,076,393).

Regarding claim 1, Bates discloses a color filter assembly (Fig. 1) rotating around a central axis, comprising:

a first carrier 18 having a first contact surface (top surface) and a first joining portion 20 protruding therefrom;

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a second carrier 34 having a second contact surface (bottom surface) and a second joining portion (defined by opening 35) connected to the first joining portion;

a protrusion 30 disposed on the first contact surface; and

a color filter 14 having a receiving portion 32 with the protrusion 30 inserted therein such that the color filter is fixed between the first and second carriers (line 56, col. 2 to line 59, col. 3).

Regarding claim 8, the color wheel assembly further includes a rotator having a shaft 24 rotating the color filter assembly around the central axis (lines 21-23, col. 3).

Regarding claims 2, 10, the pins 30 are adapted to loosely project through openings 32, hence they comprise a material with some elasticity.

Allowable Subject Matter

Claims 3, 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4-7, 11-14 are allowed.

Claims 3, 9 are allowable over the prior art of record for at least the reason that even though the prior art discloses a color wheel assembly wherein the color filter disk is fixed between a first and a second carrier, the two carriers having respective joining portions in contact with each other, the prior art fails to teach or reasonably suggest, a color filter assembly comprising a first and second joining portions connected to each other, wherein the first and second joining portions are threaded and joined together, as set forth by the claimed combination.

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Claims 4-7, 11-14 are allowable over the prior art of record for at least the reason that even though the prior art discloses a color wheel assembly wherein the color filter disk is affixed to a carrier via the use of an aligning pin, the prior art fails to teach or reasonably suggest a color filter assembly comprising a first carrier, a second carrier, and a color filter, each having a first hole, a second hole and an opening, respectively, and including a securing member having at least a rod fastened through the first hole, the opening and the second hole such that the color filter is fixed between the first and second carriers, as set forth by the claimed combination.

In Bates's color wheel, the color filter is fixedly joined to the first and second carrier via the use of a screw 44, and there is no need to have the first and second joining portions being threaded and joined together. Ohmae (US 2002/0003704, Fig. 3) discloses a color filter assembly wherein the color filter disk 31 is fixed to a carrier 32 via the use of a clamper and the positioning is facilitated by the use of pin 39 ([0140]-[0142]). Yu (US 6,705,733, Fig. 3), Chang (US 2004/0045397, Fig. 6A) disclose color wheel assemblies wherein the color filter disk is secured onto the motor via the use of a washer type member.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Leo Boutsikaris whose telephone number is 571-272-2308.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leo Boutsikaris, Ph.D.
Primary Patent Examiner, AU 2872
December 23, 2004

A handwritten signature in black ink, appearing to be 'LB' or similar initials, written over the date.